AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) Exhaustive method for detecting pathogenic bacteria genes, in particular Nm, expressing a desired phenotype, characterized in that :

- a bank of mutants generated from a given bacterial strain is used so that at least 70% of the non-essential genes, and in particular at least 80%, or even more than 90%, are mutagenized by inserting a transposon in a reading frame,
- the mutants are then brought into contact, either individually, or in pools, with an environment, such as a medium, an animal or cells, capable of interacting with the mutant bacteria expressing the desired phenotype,
- when pools are used, the bacteria not having reacted with the desired phenotype are recovered,
- the mutated genes of these bacteria are identified and their involvement in said phenotype is verified.

2. (Original) Method according to claim 1, characterized in that, in the contact stage, the mutants of the bank are passed through serum.

3. (Original) Method according to claim 1, characterized in that, in the contact stage, the mutants of the bank are passed over endothelial cells.

4. (Currently Amended) Isolated Nm genes, which give a bacteria the ability to grow or to interact with a given environment, such as serum, an in vivo animal model, cells, characterized in that they can be obtained by the method according to ~~any one of claims 1 to 3~~ claim 1.

5. (Original) Nm genes according to claim 4, characterized in that they are implicated in the growth of the bacteria in serum and are chosen from those in Figure 3.

6. (Original) Nm genes according to claim 5, characterized in that they are chosen from the genes NmB 352, NmB 065, NmB 2076, NmB 638, NmB828, NmB 825 and NmB 790.

7. (Currently Amended) Application of the genes selected according to the method of claim 2, ~~or according to claim 5 or 6,~~ as anti-pathogenicity targets, which consists in inhibiting Nm growth in vivo in the serum.

8. (Currently Amended) Application of the genes selected according to the method of claim 3, ~~or according to claim 6 or 7,~~ for the screening and manufacture of medicaments allowing the opening of the blood-brain barrier to therapeutic ingredients such as medicaments for Parkinson's Disease, Alzheimer's disease, antimitotics, medicaments for multiple sclerosis, antivirals, antimycotics and antibiotics.

9. (Original) Application of the essential genes of Nm as targets for developing broad spectrum antibiotics against Gram-negative bacteria when the corresponding protein has a homology of at least 40%, or even 80% with a protein of *E. coli*.

10. (Original) Nm genes according to claim 4, characterized in that they are involved in the interaction with endothelial cells.

11. (Original) Nm genes according to claim 10, characterized in that they are chosen from the genes of Tables 1 and 2, especially from NmA 1110, NmA 1111, NmA 1892, NmA 1107, NmA 1108, NmA 1109, and NmA 1523.

12. (Original) Application of the Nm genes according to claim 11, in particular of Nm 1110, for the development of vaccines.